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**IN THE UNITED STATES DISTRICT COURT
FOR THE
DISTRICT OF NEW JERSEY**

T.F.H. PUBLICATIONS, INC.,

Plaintiff,

v.

ASPEN PET PRODUCTS, INC.,

Defendant.

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Civil Action No. 08-cv-4805 (FLW) (TJB)

**DECLARATION OF
RUSSELL S. BURNSIDE**

I, RUSSELL S. BURNSIDE, being of full age, hereby declare as follows:

1. I am an attorney licensed in the State of New Jersey and admitted to practice in the United States District Court for the District of New Jersey. I am a member of Greenberg, Dauber, Epstein & Tucker, a Professional Corporation, attorneys for plaintiff T.F.H. Publications, Inc. ("TFH"), and as such am personally familiar with the facts contained herein.

2. Attached hereto as **Exhibit A** is a true and correct copy of United States Patent Number 6,159,516, entitled "Method of Molding Edible Starch" ("the '516 patent").

3. Attached hereto as **Exhibit B** is a true and correct copy of plaintiff TFH's Disclosure of Asserted Claims and Infringement Contentions under Local Patent Rule 3.1, served November 30, 2009 on defendant Aspen Pet Products, upon information and belief now known and/or doing business as Dorskocil Manufacturing Company, Inc.

4. Attached hereto as **Exhibit C** is a true and correct copy of a letter dated January 20, 2010 from Gregory S. Tamkin, Esq., counsel for defendant, advising of the omission of certain claims and elements of claims of the '516 patent in TFH's Rule 3.1. Disclosure.

5. By way of letter dated January 27, 2010, I informed Mr. Tamkin that TFH's omission of certain claims and elements of claims of the '516 patent in its Rule 3.1 Disclosure was inadvertent, and that plaintiff intended to amend same. A true and correct copy of my January 27, 2010 letter to Mr. Tamkin is attached hereto as **Exhibit D**.

6. A true and correct copy of the proposed amended Rule 3.1 Disclosure, presented to Mr. Tamkin with my January 27th letter, is attached hereto as **Exhibit E**.

7. By way of letter dated January 28, 2010, Mr. Tamkin advised me that defendant objected to TFH's amendment of its Rule 3.1 Disclosure and would oppose the instant motion for leave to amend. A true and correct copy of Mr. Tamkin's January 28, 2010 letter is attached as **Exhibit F**.

8. By way of letter dated January 29, 2010, I served Mr. Tamkin with the list of claim terms that TFH submits should be construed by the Court. A true and correct copy of my January 29th letter to Mr. Tamkin is attached hereto as **Exhibit G**.

9. I certify that the foregoing statements made by me are true and accurate to the best of my knowledge. I understand that if any of the foregoing statements made by me are willfully false I am subject to punishment.

Dated: February 4, 2010

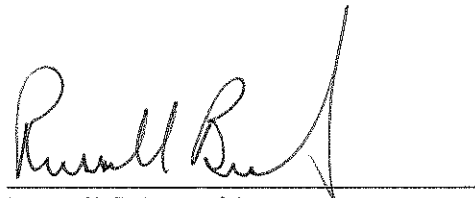

Russell S. Burnside

EXHIBIT A

US006159516A

United States Patent [19]**Axelrod et al.**[11] **Patent Number:** **6,159,516**[45] **Date of Patent:** **Dec. 12, 2000**[54] **METHOD OF MOLDING EDIBLE STARCH**[75] Inventors: **Glen S. Axelrod; Ajay Gajria**, both of Neptune City, N.J.[73] Assignee: **TFH Publication, Inc.**, Neptune City, N.J.[21] Appl. No.: **09/227,767**[22] Filed: **Jan. 8, 1999**[51] **Int. Cl.**⁷ **A23L 1/0522; A23P 1/10**[52] **U.S. Cl.** **426/456; 426/512; 426/516; 426/658; 426/661; 426/2**[58] **Field of Search** **426/2, 658, 661, 426/635, 623, 456, 512, 516, 517, 805, 808**[56] **References Cited****U.S. PATENT DOCUMENTS**

2,412,213 12/1946 Groen 260/234
 2,602,755 7/1952 Silvermail 106/189
 3,038,895 6/1962 Rutenberg et al. 260/233.3
 3,074,803 1/1963 McGowan et al. 106/38.5
 3,089,857 5/1963 Pottenger 260/2.5
 3,117,014 1/1964 Klug et al. 106/213
 3,137,592 6/1964 Protzman et al. 127/32
 3,184,335 5/1965 Germino et al. 127/71
 3,911,159 10/1975 Heusdens 426/580
 3,954,104 5/1976 Kraskin et al. 128/263
 3,956,507 5/1976 Shoaf et al. 426/96
 4,061,610 12/1977 Glowaky et al. 260/17.4
 4,076,846 2/1978 Nakatsuka et al. 426/62
 4,125,495 11/1978 Griffin 260/17.4
 4,138,013 2/1979 Okajima 206/528
 4,216,240 8/1980 Shirai et al. 426/516
 4,218,350 8/1980 Griffin 260/17.4
 4,232,047 11/1980 Sair et al. 426/96
 4,415,593 11/1983 Glass et al. 426/4
 4,673,438 6/1987 Wittwer et al. 106/126

4,738,724 4/1988 Wittwer et al. 106/213
 4,830,866 5/1989 Manser et al. 426/451
 4,900,361 2/1990 Sachetto et al. 106/213
 5,200,212 4/1993 Axelrod 426/2
 5,240,720 8/1993 Axelrod 426/2
 5,405,564 4/1995 Stepto et al. 264/115
 5,476,069 12/1995 Axelrod 119/709
 5,827,565 10/1998 Axelrod 426/512 X
 5,941,197 8/1999 Axelrod 426/512 X

FOREIGN PATENT DOCUMENTS

0118240 6/1997 European Pat. Off. C08L 3/00
 2001533 7/1971 Germany D01F 3/36
 1592062 7/1981 United Kingdom C08L 101/00
 2190093 11/1987 United Kingdom C08L 3/00

OTHER PUBLICATIONS

Bastioli, Properties and Applications of Mater-Bi Starch-based Materials, Polymer Degradation and Stability 59 (1998) pp. 263-272.

Primary Examiner—Milton Cano

Attorney, Agent, or Firm—Hayes, Soloway, Hennessey, Grossman & Hage, P.C.

[57] **ABSTRACT**

A process for forming starch into a molded article using melt processing techniques which process comprises combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of the starch and introducing and heating the mixture in an extruder wherein the water content of the product upon discharge from the extruder is less than the water content of the mixture entering the extruder. The extrudate is then, optionally dried, and introduced to a heated injection molding machine and injection molded and cooled to form a molded article wherein the water content of the molded article is at or below about 20% by weight.

35 Claims, No Drawings

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METHOD OF MOLDING EDIBLE STARCH**FIELD OF THE INVENTION**

This invention relates to a method of manufacturing edible starch products with specific utility in the form of an edible product for an animal or as a chew toy for a pet. The manufacturing method disclosed herein employs melt mixing of starch with selected amounts of additives, including water and other fillers, followed by injection molding into a selected shape. The processing conditions, including barrel temperatures and cooling profiles, as in the case of extrusion compounding, are also uniquely adjusted along with additive amount and water levels to provide molded starch products with greatly improved performance characteristics.

BACKGROUND OF THE INVENTION

The prior art is replete with disclosures directed at converting starch or related materials into a molded or shaped article. The following discussion therefore provides a brief chronological overview of the development of such technology as it has appeared in the patent literature over the past several decades.

For example, starting with U.S. Pat. No. 2,602,755 (1952) entitled "Thermoplastic Compositions of Water-Soluble Cellulose Ethers" it was disclosed that powdered methyl cellulose of a water soluble variety could be blended with a particular narrow range of mixtures of propylene glycol and glycerin to provide compositions which could be molded or extruded when pressure was applied at temperatures of 150° to 170° C., without decomposition. This was then followed by U.S. Pat. No. 3,137,592 (1961) entitled "Gelatinized Starch Products" which described a method of preparing homogenous gelatinized starch products, which method was characterized by intense mechanical working or shearing of the starch at elevated temperatures and pressures in the presence of a minor-proportion of a starch-swelling agent. The method goes on to disclose the use of a screw-type extruder, along with water as the preferred starch-swelling agent or plasticizer due to its low cost and relatively low boiling point.

Attention is next directed to U.S. Pat. No. 3,038,895 (1962) entitled "Water-Dispersible Partially Substituted Derivatives of Amylose" which describes a means for producing an amylose derivative which was readily dispersed in water without the need to exceed temperatures above 130° C., which dispersion was identified as "viscosity stable", thereby forming films of excellent water resistance. Shortly thereafter, in U.S. Pat. No. 3,074,803 (1963) entitled "Molding Starch Composition" a method was disclosed for preparing molded starch compositions, which method focused on the blending of high melting point fatty acid esters with starch which blends are then said to provide a composition relatively free of oil build-up along with what was said to be a minimum of starch dusting.

This was followed by U.S. Pat. No. 3,117,014 (1964) entitled "Amlaceous Compositions for Shaped Articles and Process" which described starch compositions which are said to flow under heat and pressure which compositions comprise a derivative of amylaceous material, a plasticizer for said derivative, and water, wherein the amount of water is between 1.0–20% by weight. Turning next to U.S. Pat. No. 4,076,846 (1978) entitled "Protein-Starch Binary Molding Composition and Shaped Articles Obtained Therefor" an edible, water-soluble thermoplastic molding composition comprising a starch material is disclosed, along with a neutral inorganic alkali salt of protein material, water, an

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edible plasticizer, an edible lubricant, and other additives. Such compositions were said to have excellent moldability and processibility when subjected to various common plastics processing techniques, such as compression molding, transfer molding, extrusion molding, blow molding, inflation molding, injection molding, vacuum forming, pressurizing forming, heat sealing, etc.

More recent disclosures include U.S. Pat. No. 4,673,438 (1987) entitled "Polymer Compositions and Injection Molding". This disclosure states that capsules and other shaped products can be formed from a starch composition comprising starch, with a molecular mass range of 10,000 to 20,000,000 Daltons, along with a water content from 5–30% by weight. The recited process using an injection molding machine requires that one maintain a starch/water composition at a water content of 5–30% by weight of the composition under controlled conditions of temperature and pressure, heating said starch/water composition at elevated pressure above its glass transition temperature and melting point while maintaining said water content to form a melt, further heating and plasticizing said molten starch/water composition to dissolve the starch in the water to form what is stated to be an essentially molecularly dispersed solution of the melt. This is followed by injecting the starch/water melt into a mold cavity while maintaining a predetermined water content, and cooling the composition in the mold to form a molded product at a temperature below the glass transition temperature of the composition and ejecting the molded product from the mold.

In U.S. Pat. No. 4,738,724 (1988) entitled "Method for Forming Pharmaceutical Capsules from Starch Compositions" injection molded capsules of starch are disclosed, for pharmaceutical applications, which method, similar to the '438 Patent discussed above, recites that one first provide a starch water mixture having a water content in the range of about 5 to 30% by weight based on the weight of starch and water. This is followed by heating the starch/water composition at elevated temperatures above its glass transition temperature and melting point while maintaining the water content to form a melt, followed by further heating and plasticizing said molten starch-water composition to dissolve the starch in the water followed by injection molding of the plasticized starch at elevated temperature and pressure into a mold, and forming a multi-chambered configuration, and ejecting the molded capsule from the mold.

U.S. Pat. No. 5,405,564 (1995) entitled "Method of Forming Shaped Articles Made From Pre-Processed Starch" recites a process of forming shaped articles from starch. The method is described as having surprisingly established that in the process of injection molding starch, there are two important steps that are preferably separated. That is, this disclosure recites that one must first heat a starch/water mixture wherein the water content is about 10% to about 20% by weight with respect to that of said starch, in a closed volume to a temperature within the range of about 120° C. to about 190° C. at a pressure corresponding to the vapor pressure of water as the used temperature and up to about 150×10^5 N/m², to form a melt, wherein said melt is extruded and cooled to a solidified and granulated product. This is then followed by heating such solid starch composition, wherein the water content of said solid composition is about 10% to about 20% by weight with respect to that of said starch, in the screw barrel of an injection molding machine or an extruder, at a temperature of from about 80° C. to about 200° C., and at a pressure of from about zero to about 150×10^5 N/m² for a time long enough to form what is termed as a melt of destructure starch, transferring said

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melt of destructurelized starch to a mold or extruding said melt of destructurelized starch while maintaining the water content in the range of from about 10% to about 20% by weight with respect to that of the composition, and cooling said melt of destructurelized starch in said mold or outside said extruder to form a solid shaped article.

Finally, attention is directed to the following U.S. Patents and copending applications, commonly owned by the assignee herein: U.S. Pat. Nos. 5,200,212; 5,240,720; 5,476,069; U.S. patent application Ser. Nos.: 08/923,070 filed Sep. 3, 1997 entitled "Vegetable Based Dog Chew"; U.S. Pat. Nos. 5,827,565; 5,941,197; U.S. patent application Ser. Nos. 08/888,611 filed Jul. 7, 1997 entitled "Vegetable Dog Chew" now abandoned; 09/114,872 filed Jul. 14, 1998 entitled "Heat Modifiable Edible Dog Chew" now abandoned; U.S. Pat. No. 5,086,940; U.S. patent application Ser. Nos. 09/138,804 filed Aug. 21, 1998 entitled "Improved Edible Dog Chew"; 09/116,070 filed Jul. 15, 1998 entitled "Wheat & Casein Dog Chew With Modifiable Texture"; 09/116,555 filed Jul. 15, 1998 entitled "Heat Modifiable Peanut Dog Chew". In addition to such patents and applications, attention is also directed to the art cited in said patents and applications, as such art relates to the field of molded starch products.

As is apparent from the above review of the prior art, a variety of efforts have been developed to convert starch, with minimum degradation, into a molded product of a desired configuration. Such efforts have focused on the use of propylene glycol, fatty acid esters, alkali salts of protein material and/or water as a starch additive, followed by melt processing techniques such as extrusion and/or injection molding. With respect to the use of water, although it has been disclosed that water apparently assists in regulating starch degradation, there has been an intensive and on-going search for some key or optimum water level, which when combined with a corresponding optimum processing profile, fully prevents the starch from overheating and ultimately degrading, and therefore leading to the development of molded products of highest possible quality.

Accordingly, the present invention has as its primary object to formulate a starch composition, followed by a processing/molding profile, which formulation and processing/molding profile affords a molded starch product with mechanical property performance that vastly improves over those starch products reported in the art.

In addition, it is also a primary object of this invention to develop and optimize the additive level for a starch composition such that the starch, subsequent to a desired melt processing technique and conversion into a desired shape, will have optimum and unique properties suitable for the manufacture of an edible starch product and/or chew toy for a pet.

SUMMARY OF THE INVENTION

A process for forming starch into a molded product using melt processing techniques, and the product produced by said process, which process comprises combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch, introducing and heating said mixture in an extruder wherein the water content of said product upon discharge from said extruder is less than the water content of said product entering said extruder, and introducing the product of (b) to a heated injection molding machine and

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injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

In accordance with the present invention, a method of manufacturing edible starch products is disclosed, which employs extrusion melt mixing of starch with selected amounts of additives, including water and other fillers, followed by injection molding into a selected shape. Preferably, the products herein have been manufactured in the form of chew toys and other similarly shaped products for pets.

Tables 1-6 herein illustrate the various processing parameters and product characteristics of the various preferred embodiments for manufacturing the shaped products of the present invention. As can be seen in the accompanying tables, preferably, potato starch, or for that matter, any carbohydrate of natural or vegetable origin, composed mainly of amylose and/or amylopectin, can be used in accordance with the present invention. It may be extracted from various plants, such as potatoes, rice, tapioca, corn and cereals such as rye, oats and wheat. Particularly preferred, however, is potato starch and corn starch, flour and mixtures thereof.

The water content of the starch is first set in the range of about 20-40% by weight with respect to that of the starch, which mixture is preferably achieved by mixing the starch with water in a Wenger DDC Preconditioner that provides controlled pre-moisturization and complete mixing of the water with the starch material. This is then followed by placement of the starch/water combination into an extruder, and in that regard, preferably, a Wenger TX Magnum Extruder is employed, available from the Wenger Company. While twin-screw operation is preferred, single screw extrusion is also an acceptable alternative. The conditions for extrusion, including such variables as extruder shaft speed, control temperatures of the various extruder zones, heat pressure, etc., are all listed in the accompanying tables. Finally, in the context of the present invention, where the water level charged in the extruder is preferably lowered during the course of extrusion, a vented barrel extruder is employed, wherein such venting lowers the water level to a desired level. To facilitate such water level change, it has been found particularly useful to apply a light vacuum to the extruder barrel at the vent port, to thereby provide a more efficient removal of water from the extrudate therein.

As already noted, water levels for the starch/water mixture charged into the extruder begin at about 20-40% by weight, but preferably, water content is best adjusted to the following ranges of water content: 25-35%, 30-35%, and 30-33%. In particularly preferred embodiment, the water level of the starch/water mixture entering the extruder is at about 31.2%, 31.1%, 30.2%, 22.5%, and 25.2% as shown in Examples I-V in the accompanying Tables 1-6. However, in accordance with the present invention, those skilled in the art will recognize that the ranges are only preferred, and other levels of water may be optionally selected within the broad teachings provided herein. The resulting products of extrusion are conveniently formed in the shape of beads, the size of which can be made to vary in accordance with standard pelletizing equipment.

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TABLE 1

<u>EXTRUSION CONDITIONS</u>				
		I	II	III
<u>PRECONDITIONING INFORMATION</u>				
Preconditioner Speed	rpm	200	200	200
Steam Flow to Preconditioner	kg/hr	0	0	0
Water Flow to Preconditioner	kg/hr	16.26	16.26	16.26
Moisture Entering Extruder	% wt	31.19	31.12	30.22
<u>EXTRUSION INFORMATION:</u>				
Extruder Shaft Speed	rpm	100	170	150
Extruder Motor Load	%	67	45	38
Steam Flow to Extruder	kg/hr	0	0	0
Water Flow to Extruder	kg/hr	0	0	0
Control/Temperature 1 st Head	° C.			
Control/Temperature 2 nd Head	° C.	20/16	20/19	15
Control/Temperature 3 rd Head	° C.	20/16	20/18	15
Control/Temperature 4 th Head	° C.	65/65	75/75	80/80
Control/Temperature 5 th Head	° C.	65/65	75/75	80/80
Control/Temperature 6 th Head	° C.	65/65	75/75	80/79
Control/Temperature 7 th Head	° C.	65/65	75/75	75/74
Control/Temperature 8 th Head	° C.	65/65	75/75	75/74
Control/Temperature 9 th Head	° C.	65/67	75/75	70/67
Head/Pressure	kPs	7/0	7/0	7/0
Head/Pressure	kPa	8/5520	8/5520	8/6210
<u>FINAL PRODUCT INFORMATION:</u>				
Extruder Discharge Moisture	% wt	29.37	29.78	27.11
Extruder Discharge Rate	kg/hr	100	110	
Extruder Performance		Stable	Stable	Stable
Final Product Description		Starch Beads	Starch Beads	Starch Beads

I. Potato starch 93.5% (Redisol brand) with 5% calcium carbonate and 1.5% Blendmax lecithin as processing aid.

II. Potato starch 93.03% with 4.98% calcium carbonate and 1.99% Blendmax lecithin.

III. Potato starch 88.50 with 10.0% calcium carbonate and 1.5% Blendmax lecithin.

TABLE 2

<u>DRYER FORMULA</u>				
FORMULA NUMBER:		I	II	III
Model Number				
Number of Sections				
Zone 1 Temperature	° C.	76.6	76.6	76.6
Retention Time - Pass 1	min	15	15	15
Retention Time - Pass 2	min	45	45	45
Retention Tie - Cooler	min	5	5	5
Exhaust Relative	%	40	40	40
Humidity				

TABLE 3

<u>PRODUCT ANALYSIS</u>				
PRODUCT ANALYSIS NUMBER:		I	II	III
Product Moistures				
Preconditioner Discharge	% wt	31.19	31.12	30.22
Extruder Discharge	% wt	29.37	29.78	27.11
Dryer Discharge	% wt	15.62	14.9	14.14

TABLE 4

<u>EXTRUSION CONDITIONS</u>				
		IV	V	
<u>RUN NUMBER:</u>				
45	Dry Recipe Information			
	Dry Recipe Density	kg/m ³	780	780
	Dry Recipe Rate	kg/hr	583	606
	Feed Screw Speed	rpm	30	27
<u>PRECONDITIONING INFORMATION:</u>				
50	Preconditioner Speed	rpm	250	250
	Steam Flow to Preconditioner	kg/hr	36	36
	Water Flow to Preconditioner	kg/hr	90	90
	Preconditioner Discharge Temp.	° C.	93	90
55	Moisture Entering Extruder	% wt	22.63	25.15
<u>EXTRUSION INFORMATION:</u>				
	Extruder Shaft Speed	Rpm	228	230
	Extruder Motor Load	%	49	49
	Steam Flow to Extruder	kg/hr	0	0
60	Water Flow to Extruder	kg/hr	0	0
	Control/Temperature 1 st Head	° C.	38/55	38/50
	Control/Temperature 2 nd Head	° C.	70/80	77/77
	Control/Temperature 3 rd Head	° C.	80/80	86/87
	Control/Temperature 4 th Head	° C.	90/93	90/91
	Control/Temperature 5 th Head	° C.	80/77	80/79
65	Head/Pressure	kPs	4950	4280
	Knife Drive Speed	rpm	675	

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TABLE 4-continued

<u>EXTRUSION CONDITIONS</u>			
		IV	V
<u>FINAL PRODUCT INFORMATION:</u>			
Extruder Discharge Moisture	% wt	15.16	13.93
Final Product Description		Beads	Beads
IV. Cornflour 91.49% with 7.01% calcium carbonate and 1.5% lecithin			
V. Riceflour 91.49% with 7.01% calcium carbonate and 1.5% lecithin			

TABLE 5

<u>DRYER FORMULA</u>			
DRYER FORMULA NUMBER:		IV	V
Model Number			
Zone 1 Temperature	° C.	92	90
Zone 2 Temperature	° C.	100	100
Retention Time - Pass 1	min	13.9	13.8
Retention Time - Pass 2	min	15.4	15.3
Fan Speed 1	rpm	1800	1800
Fan Speed 2	rpm	1815	1800
Fan Speed 3	rpm	1805	1800
Fan Speed 4	rpm	1800	1800

TABLE 6

<u>PRODUCT ANALYSIS</u>			
PRODUCT MOISTURES:		IV	V
Preconditioner Discharge	% wt	22.63	25.16
Extruder Discharge	% wt	15.16	13.93

Once extruded bead is produced, and as can be seen from the various preferred embodiment identified in the accompanying Tables, the water level of the bead exiting the extruder is less than the water level of the starch/water mixture entering the extruder. In the context of the present invention, it has been appreciated that by starting at the starch/water levels herein, one effectively insures that one will ultimately proceed to injection molding at an adequate water level to provide for a stable melt (non-degrading) and injection mold a quality starch product with improved performance characteristics.

Subsequent to recovery of the starch/water extrudate, optionally, the extrudate may be placed into a dryer at various periods of time (see Tables 2 and 5) wherein the water level of the extrudate is lowered an additional amount depending upon dryer conditions. Preferably, the water level of the starch/water extrudate is lowered within the range of about 15–20%, at which point the extrudate is in condition for injection molding.

In the step of injection molding, preferably, the injection molding technique is similarly configured to reduce moisture content once again, to a final level that is at or below about 20% by weight of the starch material. However, in preferred embodiment, the final level of water in the molded product is between about 5–20% by weight, in a more preferable embodiment the water level of the molded prod-

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uct is set to about 10–15% by weight, and in a most preferred embodiment, the water level of the molded product is set to about 11–14%, or 11–13% by weight. It has been found, therefore, that by sequencing the loss of water, from extrusion, to injection molding, one achieves outstanding quality for the various shaped products produced in accordance with such step-down in moisture levels through-out the melt processing history disclosed herein.

In that regard, it has been uniquely found in accordance with the present invention that it is important to actually cool the initial zone or zones of the injection molding machine proximate the hopper feed section to thereby significantly improve the quality of the injection molded parts produced herein. This is, of course, contrary to conventional injection molding practices, wherein uniform heating above the resin Tm is generally applied to all zones of the injection molding apparatus.

Those skilled in the art will appreciate that an injection molding machine typically contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in the barrel extending from the hopper section to the nozzle. In accordance therefore with the present invention, it has been found preferable to maintain the temperature in the first zone adjacent the hopper at a temperature of less than about 150° F. More preferably, the first zone adjacent the hopper is set in the range of about 45–150° F. In an even more preferred embodiment, i.e., that situation wherein there is a first zone adjacent the hopper, and a second zone adjacent the first zone, the temperatures of the first zone is set to about 45–70° F., and the second zone is set to about 70–150° F. These temperatures are most conveniently achieved by the use of cooling coils placed about the barrel of the injection molding machine, said cooling coils comprising copper cooling coils with circulating water.

In a particularly preferred embodiment, the following temperature profile has been successfully applied to a standard injection molding machine: Zone 4 (closest to hopper)=45–70° F.; Zone 3=70–150° F.; Zone 2=150–300° F.; Zone 1=275–375° F., Nozzle=275–390° F. In addition, bushing (inside the mold) is preferably set at about 325–425° F. The mold temperature is preferably set at 35–65° F.

The advantage of the above unique temperature profile, is that as opposed to the conventional practice of heating the barrel of the screw to melt the material in the zones proximate the hopper, the barrel is cooled at such regions to prevent the starch material from over-heating and burning. Those skilled in the art will recognize that in the case of preparing a high-quality injection molded starch product, burning has been a pervasive problem. Accordingly, unique to the invention herein, it has been appreciated that such over-heating and burning can be regulated by an injection molding heating zone profile that actually cools the barrel of the injection molding machine, thereby minimize the ability of the starch to thermally degrade.

In accordance with the present invention, other additives can be advantageously combined with the starch/water mixture to further improve the quality or strength characteristics of the molded products ultimately produced. In that regard, and for the purpose of preparing a pet chew toy, it has been found desirable to add attractants such as chicken powder, liver powder, ham, turkey, beef and/or fish in an amount of from about 1.0–5.0% by weight.

For example, once a molded product is prepared in accordance with the present invention, it has also been found that over time, the water may actually migrate out of the starch, thereby making the starch more brittle, which, of course, would be unsuitable in the case of a pet chew toy.

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However, by the addition of a humectant, a compound additive which retains water in the material even in the presence of heat, the products herein will remain more ductile over longer periods of time. A particularly preferred humectant is oat fiber, and the levels of such humectant are advantageously in the range of 0.1–5.0%, more preferably, 0.5–3%, and in a most preferred embodiment, 0.5–1.0%.

The various pet chew toys made in accordance with the present invention have been found, for example, to be popular with dogs, by virtue of its chewability and consistency, and improved mechanical properties. As the dog chews on the product, small sections of the product become dislodged, thereby providing the animal with the nutritional benefit of the components contained therein. In accordance therefore with the present invention, additives such as vitamins may be added to the product, either during extrusion or injection molding.

A preferred dog chew of the present invention is prepared from a potato starch product sold under the trademark PARAGON 1010IM by AVEBE, of Veendam, The Netherlands. The PARAGON 1010 IM is sold in the form of thermoplastic granules which can be molded in accordance with the novel injection molding processing conditions disclosed herein, which, as noted above, operates under conditions wherein the zone or zones proximate to the hopper are actually cooled, as opposed to heated. In such preferred formulation, the starch is present at about 70%, the water is at about 15%, along with 5–10% calcium carbonate and 1–5% natural vegetable additive. That calcium carbonate has been found to increase the hardness of the products produced therefrom.

This invention has been set forth in detail, but it should be understood by those skilled in the art that the various example herein are by way of illustration only. Modifications and variation will therefore be apparent and may be resorted to without departing from the spirit and equivalent scope of this invention. Accordingly, such modifications and equivalents are considered to be within the purview of scope of the invention as set forth in the following claims:

What is claimed is:

1. A process for forming starch into a molded article using melt processing techniques which process comprises:

- (a) combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch;
- (b) introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder; and
- (c) introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight.

2. The process of claim 1, wherein the injection molded machine is a vented barrel injection molding machine.

3. The process of claim 1, wherein the injection molding machine contains a vented mold.

4. The process of claim 1, further comprising the step of introducing the product of step (b) to a dryer and reducing the water content to a level less than that of the water content of said product discharged from said extruder.

5. The process of claim 1 wherein said water content in step (a) is about 25–35% by weight.

6. The process of claim 1, wherein said water content in step (a) is about 30–35% by weight.

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7. The process of claim 1 wherein said water content in step (a) is about 30–33% by weight.

8. The process of claim 1, wherein the water content of said molded article is about 5–20% by weight.

9. The process of claim 1, wherein the water content of said molded article is about 10–15% by weight.

10. The process of claim 1, wherein the water content of said molded article is about 11–14% by weight.

11. The process of claim 1, wherein the water content of said molded article is about 11–13% by weight.

12. The process of claim 1, wherein the water content in step (a) is about 25–35% by weight, and the water content of said molded article is about 10–15% by weight.

13. The process of claim 1, wherein during step (c), 1–5% of an attractant and 0.1–5% of a humectant are added to said extruded mixture.

14. A process for forming starch into a molded article using melt processing techniques which process comprises:

(a) combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch;

(b) introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder; and

(c) introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight, wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle, wherein said heating zone in said barrel adjacent said hopper is maintained at a temperature of less than about 150° F.

15. The process of claim 14, further comprising the step of introducing the product of step (b) to a dryer and reducing the water content to a level less than that of the water content of said product discharged from said extruder.

16. The process of claim 14, wherein said barrel adjacent said hopper is maintained at a temperature of less than about 100° F.

17. The process of claim 14 wherein said barrel adjacent said hopper is maintained at a temperature of less than about 75° F.

18. The process of claim 14, wherein said barrel adjacent said hopper is cooled to a temperature of between about 40–80° F.

19. The process of claim 14 wherein said cooling to form said molded product takes place in a mold cooled to about 35–65° F.

20. A process for forming starch into a molded article using melt processing techniques which process comprises:

(a) combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch;

(b) introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder; and

(c) introducing the extruded beads of (b) to a heated injection molding machine and injection molding and

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cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight, wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle, wherein the first and second zones adjacent said hopper are maintained at a temperature less than about 150° F.

21. The process of claim 20, further comprising the step of introducing the product of step (b) to a dryer and reducing the water content to a level less than that of the water content of said product discharged from said extruder.

22. The process of claim 20, wherein during step (c), 1–5% of an attractant and 0.1–5% of a humectant are added to said extruded mixture.

23. A process for forming starch into a molded article using melt processing techniques which process comprises:

(a) combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of said starch;

(b) introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder; and

(c) introducing the extruded beads of (b) to a heated injection molding machine containing a mold and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight, wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle, wherein said plurality of heating zones are set within the following temperature ranges:

zone 1—at or below about 70° F.

zone 2—at or below 150° F.

zone 3—at or below 300° F.

zone 4—at or below about 375° F.

24. The process of claim 23, further comprising the step of introducing the extruded mixture of step (b) to a dryer and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder.

25. The process of claim 23, wherein said cooling to form said molded article takes place in said mold at a temperature of about 35–65° F.

26. The process of claim 23, wherein said mold contains a bushing heated to about 300–425° F.

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27. The process of claim 23, wherein said nozzle is maintained at a temperature between about 275–390° F.

28. The process of claim 23, wherein during step (c), 1–5% of an attractant and 0.1–5% of a humectant are added to said extruded mixture.

29. In the process of manufacturing a molded starch/water product, the improvement which comprises forming extruded starch pellets via a vented barrel extruder containing water therein and introducing those pellets to a heated injection molding machine and injection molding and cooling to form a molded article wherein the water content of said molded article is at or below about 20% by weight, wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle, wherein the zone adjacent said hopper is maintained at a temperature less than about 150° F.

30. The process of claim 29, wherein said zone adjacent said hopper is maintained at a temperature between 45–150° F.

31. The process of claim 29 wherein said zone adjacent said hopper comprises a first heating zone adjacent said hopper, and a second heating zone adjacent said first zone, and the temperatures of said first heating zone is about 45–70° F. and the temperature of said second heating zone is about 70–150° F.

32. The process of claim 29 wherein during said injection molding 1–5% of an attractant and 0.1–5% of a humectant are added to said extruded mixture.

33. An injection molded starch product formed by:

(a) combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch;

(b) introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder; and

(c) introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded starch product wherein the water content of said molded article is at or below about 20% by weight.

34. The product of claim 33, further comprising the step of introducing the extruded mixture of step (b) to a dryer and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder.

35. The product of claim 34 wherein during step (c), 1–5% of an attractant and 0.1–5% of a humectant are added to said extruded mixture.

* * * * *

EXHIBIT B

GREENBERG DAUBER EPSTEIN & TUCKER

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Newark, New Jersey 07102

Attorneys for Plaintiff T.F.H. Publications, Inc.

**IN THE UNITED STATES DISTRICT COURT
FOR THE
DISTRICT OF NEW JERSEY**

T.F.H. PUBLICATIONS, INC.,	:	Civil Action No. 08-cv-4805 (FLW) (TJB)
	:	
Plaintiff,	:	
	:	
v.	:	PLAINTIFF T.F.H. PUBLICATIONS,
	:	INC.'S DISCLOSURE OF ASSERTED
ASPEN PET PRODUCTS, INC.,	:	CLAIMS AND INFRINGEMENT
	:	CONTENTIONS
	:	PURSUANT TO L. PAT. R. 3.1
Defendant.	:	

To: Gregory S. Tamkin, Esq.
Dorsey & Whitney LLP
370 Seventeenth Street, Suite 4700
Denver, Colorado 80202

Plaintiff T.F.H. Publications, Inc. ("TFH") hereby makes the following Disclosure of
Asserted Claims and Infringement Contentions pursuant to *Local Patent Rule 3.1*:

L. Pat. R. 3.1(a):

*Each claim of each patent in suit that is allegedly infringed by each opposing party,
including for each claim the applicable statutory subsections of 35 U.S.C. § 271 asserted:*

TFH claims that defendant Aspen Pet Products, Inc., upon information and belief now known
and/or doing business as Dorskocil Manufacturing Company, Inc. ("Dorskocil"), has infringed the
following claims of U.S. Patent Number 6,159,516 ("the '516 Patent"), each in violation of 35
U.S.C. § 271(a) and (b):

Claim 1(a), “combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch”;

Claim 1(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;

Claim 1(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight”;

Claim 4, “The process of claim 1, further comprising the step of introducing the product of step (b) to a dryer and reducing the water content to a level less than that of the water content of said product discharged from said extruder”;

Claim 5, “The process of claim 1 wherein said water content in step (a) is about 25-35% by weight”;

Claim 6, “The process of claim 1 wherein said water content in step (a) is about 30-35% by weight”;

Claim 7, “The process of claim 1 wherein said water content in step (a) is about 30-33% by weight”;

Claim 8, “The process of claim 1, wherein the water content of said molded article is about 5-20% by weight”;

Claim 9, “The process of claim 1, wherein the water content of said molded article is about 10-15% by weight”;

Claim 10, “The process of claim 1, wherein the water content of said molded article is about 11-14% by weight”;

Claim 11, “The process of claim 1, wherein the water content of said molded article is about 11-13% by weight”;

Claim 12, “The process of claim 1, wherein the water content in step (a) is about 25-35% by weight, and the water content of said molded article is about 10-15% by weight.

Claim 13, “The process of claim 1 wherein during step (c), 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture”;

Claim 14(a), “combining starch and water to form a mixture wherein the water content is

in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch”;

Claim 14(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;

Claim 20(a), “combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch”;

Claim 20(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;

Claim 21, “The process of claim 20, further comprising the step of introducing the product of step (b) to a dryer and reducing the water content to a level less than that of the water content of said product discharged from said extruder”;

Claim 23(a), “combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch”;

Claim 23(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;

Claim 24, “The process of claim 23, further comprising the step of introducing the extruded mixture of step (b) to a dryer and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder”;

Claim 33(a), “combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch”;

Claim 33(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;

Claim 33(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded starch product wherein the water content of said molded article is at or below about 20% by weight”;

Claim 34, “The process of claim 33, further comprising the step of introducing the extruded

mixture of step (b) to a dryer and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder”; and

Claim 35, “The product of claim 34 wherein during step (c), 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.”

L. Pat. R. 3.1(b):

Separately for each asserted claim, each accused apparatus, product, device, process, method, act, or other instrumentality (“Accused Instrumentality”), of each opposing party of which the party is aware. This identification shall be as specific as possible. Each product, device, and apparatus shall be identified by name or model number, if known. Each method or process shall be identified by name, if known, or by any product, device or apparatus which, when used, allegedly results in the practice of the claimed method or process:

Upon information and belief, defendant Dorskocil has infringed upon **Claim 1(a)** through its agent Crosswinds Industries, Inc. (“Crosswinds”), located at 812 South 12th Street, Hiawatha, Kansas, 66434 by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of the starch.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 1(b)** by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder.

Upon information and belief, defendant Doskocil has infringed upon **Claim 1(c)** through its agent B&R Plastics, (“B&R”) located in Colorado by B&R’s use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Doskocil has infringed upon **Claim 4** by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process.

Upon information and belief, defendant Doskocil has infringed upon **Claim 5** by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Doskocil has infringed upon **Claim 6** by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Doskocil has infringed upon **Claim 7** by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Doskocil has infringed upon **Claim 8** by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 9** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 10** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 11** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 12** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 13** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 14(a)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of the starch.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 14(b)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of,

among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 20(a)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of the starch.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 20(b)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 21** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process.

Upon information and belief, defendant Daskocil has infringed upon **Claim 23(a)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of the starch.

Upon information and belief, defendant Daskocil has infringed upon **Claim 23(b)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder.

Upon information and belief, defendant Daskocil has infringed upon **Claim 24** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process.

Upon information and belief, defendant Daskocil has infringed upon **Claim 33(a)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of the starch.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 33(b)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 33(c)** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 34** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 35** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

L. Pat. R. 3.1(c):

A chart identifying specifically where each limitation of each asserted claim is found within each Accused Instrumentality, including for each limitation that such party contends is governed by 35 U.S.C. § 112(6), the identity of the structure(s), act(s), or material(s) in the Accused Instrumentality that performs the claimed function:

<u>Limitation of the '516 Patent</u>	<u>Location Within the Accused Instrumentality</u>
Claim 1(a) , “combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch”	Upon information and belief, defendant Daskocil, through its agent Crosswinds, adds at least 20% water to the starch in the preconditioner, and at least an additional 5% water as the material enters the extrusion process via a liquid injection port. Thus, upon information and belief, the starch and water are combined to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch, immediately prior to the introduction of the mixture to the cascade devolatilization process.

<p>Claim 1(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the heated starch and water mixture via a hopper to a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144. Upon information and belief, some venting occurs at the twin screw hopper. Upon information and belief, in the area between the two stages of the cascade devolatilization process further venting occurs. Upon information and belief, defendant Dorskocil, through its agent Crosswinds, utilizes starve feeding, which facilitates the venting of moisture within the barrel of the extruder. Finally, upon information and belief, additional venting occurs while the mixture exits the twin screw extruder, prior to completion of the cascade devolatilization extrusion process.</p>
<p>Claim 1(b), “... wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”</p>	<p>Upon information and belief, the water content of the mixture upon completion of Dorskocil’s cascade devolatilization extrusion process, through its agent Crosswinds, is less than that of said mixture when entering said process.</p>
<p>Claim 1(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding [sic] ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.</p>
<p>Claim 1(c), “... and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight.”</p>	<p>Upon information and belief, having introduced the extruded material to the heated injection molding machine, defendant Dorskocil, through its agent B&R, cools the mixture such that the water content of the final molded article is at or below 20% by weight.</p>

Claim 4 , "The process of claim 1, further comprising the step of introducing the product of step (b) to a dryer ..."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, introduces the product formed by its infringement of Claim 1(b) to a dryer.
Claim 4 , "... and reducing the water content to a level less than that of the water content of said product discharged from said extruder."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, uses said dryer to reduce the water content of the said product to a level less than that of the water content upon discharge from the cascade devolatilization extrusion process.
Claim 5 , "The process of claim 1 wherein said water content in step (a) is about 25-35% by weight."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, combines the starch and water mixture prior to the start of the cascade devolatilization process such that the water content is about 25-35% by weight.
Claim 6 , "The process of claim 1 wherein said water content in step (a) is about 30-35% by weight."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, combines the starch and water mixture prior to the start of the cascade devolatilization process such that the water content is about 30-35% by weight.
Claim 7 , "The process of claim 1 wherein said water content in step (a) is about 30-33% by weight."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, combines the starch and water mixture prior to the start of the cascade devolatilization process such that the water content is about 30-33% by weight.
Claim 8 , "The process of claim 1, wherein the water content of said molded article is about 5-20% by weight."	Upon information and belief, defendant Daskocil, through its agents Crosswinds and B&R, creates the molded article described above such that the water content is about 5-20% by weight.
Claim 9 , "The process of claim 1, wherein the water content of said molded article is about 10-15% by weight."	Upon information and belief, defendant Daskocil, through its agents Crosswinds and B&R, creates the molded article described above such that the water content is about 10-15% by weight.

<p>Claim 10, “The process of claim 1, wherein the water content of said molded article is about 11-14% by weight.”</p>	<p>Upon information and belief, defendant Daskocil, through its agents Crosswinds and B&R, creates the molded article described above such that the water content is about 11-14% by weight.</p>
<p>Claim 11, “The process of claim 1, wherein the water content of said molded article is about 11-13% by weight.”</p>	<p>Upon information and belief, defendant Daskocil, through its agents Crosswinds and B&R, creates the molded article described above such that the water content is about 11-13% by weight.</p>
<p>Claim 12, “The process of claim 1, wherein the water content in step (a) is about 25-35% by weight, and the water content of said molded article is about 10-15% by weight.”</p>	<p>Upon information and belief, defendant Daskocil, through its agents Crosswinds and B&R, creates the molded article described above such that the water content is about 10-15% by weight.</p>
<p>Claim 13, “The process of claim 1 wherein during step (c), 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.</p>
<p>Claim 14(a), “combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, adds at least 20% water to the starch in the preconditioner, and at least an additional 5% water as the material enters the extrusion process via a liquid injection port. Thus, upon information and belief, the starch and water are combined to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch, immediately prior to the introduction of the mixture to the cascade devolatilization process.</p>

<p>Claim 14(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the heated starch and water mixture via a hopper to a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144. Upon information and belief, some venting occurs at the twin screw hopper. Upon information and belief, in the area between the two stages of the cascade devolatilization process further venting occurs. Upon information and belief, defendant Dorskocil, through its agent Crosswinds, utilizes starve feeding, which facilitates the venting of moisture within the barrel of the extruder. Finally, upon information and belief, additional venting occurs while the mixture exits the twin screw extruder, prior to completion of the cascade devolatilization extrusion process.</p>
<p>Claim 14(b), “... wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder.”</p>	<p>Upon information and belief, the water content of the mixture upon completion of Dorskocil’s cascade devolatilization extrusion process, through its agent Crosswinds, is less than that of said mixture when entering said process.</p>
<p>Claim 20(a), “combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch.”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, adds at least 20% water to the starch in the preconditioner, and at least an additional 5% water as the material enters the extrusion process via a liquid injection port. Thus, upon information and belief, the starch and water are combined to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch, immediately prior to the introduction of the mixture to the cascade devolatilization process.</p>

<p>Claim 20(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the heated starch and water mixture via a hopper to a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144. Upon information and belief, some venting occurs at the twin screw hopper. Upon information and belief, in the area between the two stages of the cascade devolatilization process further venting occurs. Upon information and belief, defendant Dorskocil, through its agent Crosswinds, utilizes starve feeding, which facilitates the venting of moisture within the barrel of the extruder. Finally, upon information and belief, additional venting occurs while the mixture exits the twin screw extruder, prior to completion of the cascade devolatilization extrusion process.</p>
<p>Claim 20(b), “... wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder.”</p>	<p>Upon information and belief, the water content of the mixture upon completion of Dorskocil’s cascade devolatilization extrusion process, through its agent Crosswinds, is less than that of said mixture when entering said process.</p>
<p>Claim 21, “The process of claim 20, further comprising the step of introducing the product of step (b) to a dryer ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the product formed by its infringement of Claim 20(b) to a dryer.</p>
<p>Claim 21, “... and reducing the water content to a level less than that of the water content of said product discharged from said extruder.”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, uses said dryer to reduce the water content of the said product to a level less than that of the water content upon discharge from the cascade devolatilization extrusion process.</p>

<p>Claim 23(a), “combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, adds at least 20% water to the starch in the preconditioner, and at least an additional 5% water as the material enters the extrusion process via a liquid injection port. Thus, upon information and belief, the starch and water are combined to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch, immediately prior to the introduction of the mixture to the cascade devolatilization process.</p>
<p>Claim 23(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads ...”</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, introduces the heated starch and water mixture via a hopper to a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144. Upon information and belief, some venting occurs at the twin screw hopper. Upon information and belief, in the area between the two stages of the cascade devolatilization process further venting occurs. Upon information and belief, defendant Daskocil, through its agent Crosswinds, utilizes starve feeding, which facilitates the venting of moisture within the barrel of the extruder. Finally, upon information and belief, additional venting occurs while the mixture exits the twin screw extruder, prior to completion of the cascade devolatilization extrusion process.</p>
<p>Claim 23(b), “... wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;</p>	<p>Upon information and belief, the water content of the mixture upon completion of Daskocil’s cascade devolatilization extrusion process, through its agent Crosswinds, is less than that of said mixture when entering said process.</p>

<p>Claim 24, “The process of claim 23, further comprising the step of introducing the extruded mixture of step (b) to a dryer ...”</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, introduces the extruded mixture formed by its infringement of Claim 23(b) to a dryer.</p>
<p>Claim 24, “... and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, uses said dryer to reduce the water content of the said product to a level less than that of the water content upon discharge from the cascade devolatilization extrusion process.</p>
<p>Claim 33(a), “combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, adds at least 20% water to the starch in the preconditioner, and at least an additional 5% water as the material enters the extrusion process via a liquid injection port. Thus, upon information and belief, the starch and water are combined to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch, immediately prior to the introduction of the mixture to the cascade devolatilization process.</p>

<p>Claim 33(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the heated starch and water mixture via a hopper to a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144. Upon information and belief, some venting occurs at the twin screw hopper. Upon information and belief, in the area between the two stages of the cascade devolatilization process further venting occurs. Upon information and belief, defendant Dorskocil, through its agent Crosswinds, utilizes starve feeding, which facilitates the venting of moisture within the barrel of the extruder. Finally, upon information and belief, additional venting occurs while the mixture exits the twin screw extruder, prior to completion of the cascade devolatilization extrusion process.</p>
<p>Claim 33(b), “... wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder.”</p>	<p>Upon information and belief, the water content of the mixture upon completion of Dorskocil’s cascade devolatilization extrusion process, through its agent Crosswinds, is less than that of said mixture when entering said process.</p>
<p>Claim 33(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding [sic] ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.</p>
<p>Claim 33(c), “... and cooling to form said molded starch product wherein the water content of said molded article is at or below about 20% by weight.”</p>	<p>Upon information and belief, having introduced the extruded material to the heated injection molding machine, defendant Dorskocil, through its agent B&R, cools the mixture such that the water content of the final molded article is at or below 20% by weight.</p>

Claim 34 , “The process of claim 33, further comprising the step of introducing the extruded mixture of step (b) to a dryer ...”	Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the extruded mixture formed by its infringement of Claim 33(b) to a dryer.
Claim 34 , “... and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder.”	Upon information and belief, defendant Dorskocil, through its agent Crosswinds, uses said dryer to reduce the water content of the said product to a level less than that of the water content upon discharge from the cascade devolatilization extrusion process.
Claim 35 , “The product of claim 34 wherein during step (c), 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.”	Upon information and belief, defendant Dorskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.

L. Pat. R. 3.1(d):

For each claim that is alleged to have been indirectly infringed, an identification of any direct infringement and a description of the acts of the alleged indirect infringer that contribute to or are inducing that direct infringement. Insofar as alleged direct infringement is based on joint acts or multiple parties, the role of each such party in the direct infringement must be described:

Plaintiff TFH does not allege indirect infringement with respect to any asserted claims or limitations within the ‘516 Patent. Upon information and belief, defendant Dorskocil engages in, induces, directs, and/or encourages the direct infringement of the ‘516 through its agents Crosswinds and B&R as set forth in detail with respect to *L. Pat. R. 3.1(b) and (c), supra*.

L. Pat. R. 3.1(e):

Whether each limitation of each asserted claim is alleged to be literally present or present under the doctrine of equivalents in the Accused Instrumentality:

Plaintiff TFH alleges that each limitation in each asserted claim is literally present in the Accused Instrumentality. Plaintiff TFH does not allege that any limitation of any asserted claim is present under the doctrine of equivalents.

L. Pat. R. 3.1(f):

For any patent that claims priority to an earlier application, the priority date to which each asserted claim allegedly is entitled:

Plaintiff TFH does not assert that the '516 Patent claims priority to an earlier application. Thus, no statement with respect to L. Pat. R. 3.1(f) is required.

L. Pat. R. 3.1(g):

If a party claiming patent infringement wishes to preserve the right to rely, for any purpose, on the assertion that its own apparatus, product, device, process, method, act, or other instrumentality practices the claimed invention, the party shall identify, separately for each asserted claim, each such apparatus, product, device, process, method, act or other instrumentality that incorporates or reflects that particular claim:

TFH contends that its own apparatus, product, device, process, method, act, or other instrumentality practices the claimed invention. However, for purposes of TFH's infringement claim against defendants, such apparatus, product, device, process, method, act, or other instrumentality is not directly relevant. TFH reserves the right to supplement or amend this response should defendant raise or assert any defense or contention that implicates such apparatus, product, device, process, method, act, or other instrumentality.

L. Pat. R. 3.1(h):

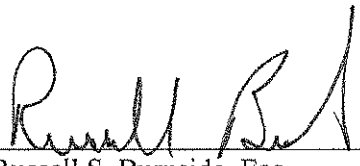
If a party claiming patent infringement alleges willful infringement, the basis for such allegation:

Upon information and belief, Daskocil, a competitor of TFH, determined to use and designed its version of the cascade devolatilization extrusion process knowing the existence of and the claim limitations within TFH's '516 patent and that said process was embodied in the claims of the '516 patent. Upon information and belief, Daskocil did not obtain a good faith opinion from counsel with regard to the cascade devolatilization extrusion process. Further, Daskocil attempted to hide from TFH the specifics of its infringing process when confronted with TFH's allegations of infringement. Moreover, Daskocil has been a defendant in prior actions commenced by TFH in this Court for actions constituting violations of TFH's intellectual property rights.

Plaintiff TFH reserves the right to amend or supplement this Disclosure of Asserted Claims and Infringement Contentions should discovery in this matter reveal further infringement of the '516 patent by defendant Daskocil, or its agents, beyond that described herein.

Dated: November 30, 2009

Greenberg Dauber Epstein & Tucker
A Professional Corporation
Attorneys For T.F.H. Publications, Inc.

By: 

Russell S. Burnside, Esq.
One Gateway Center, Suite 600
Newark, NJ 07102
(973) 643-3700

EXHIBIT C



GREGORY S. TAMKIN
(303) 629-3438
tamkin.greg@dorsey.com

January 20, 2009

VIA ELECTRONIC MAIL

Russell S. Burnside, Esq.
Greenberg Dauber Epstein & Tucker
One Gateway Center
Newark, NJ 07102-5311

Re: *T.F.H. Publications, Inc. v. Aspen Pet Products, Inc.*

Dear Russ:

As you know one of the purposes of T.F.H. Publications, Inc.'s ("TFH") Local Patent Rule 3.1 disclosures is to narrow the focus of the case to just those claims for which TFH asserts infringement. In the process of limiting our Rule 3.3 Invalidity Contentions to only the claims TFH has put in dispute, we note that TFH is attempting to put parts of certain claims, but not the entire claims, in dispute.

Specifically, we note that TFH asserts infringement of claims 14(a), 14(b); 20(a) and 20(b); and 23(a) and 23(b). All three of those particular claims in the '516 patent contain an additional component or element "(c)." Indeed, each of claims 14, 20, and 23 are three-step process claims, yet TFH does not allege infringement of element "(c)" for any of those claims. As I am sure you are aware, there can be no finding of patent infringement unless *all* the elements of a particular claim are met. *E.g., Forest Labs. Inc. v. Abbott Labs.*, 239 F.3d 1305, 1310 (Fed.Cir.2001).

Thus, as TFH has not asserted all the elements of claims 14, 20, or 23, Aspen Pet will not be providing any invalidity analysis with respect to those claims. Furthermore, to the extent to which there are any claim terms distinct to those claims, we do not intend to identify those as in need of construction as part of our next disclosure obligation. If TFH intends to move to amend its 3.1 disclosures, please let us know and let us know the good cause upon which TFH intends to base its motion so that we can consider our position.

Very truly yours,


Gregory S. Tamkin

cc: Thomas McKay, III, Esq.

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EXHIBIT D

RUSSELL S. BURNSIDE
ADMITTED IN NJ, NY, PA, DC

January 27, 2010

Via E-Mail

Gregory S. Tamkin, Esq.
Dorsey & Whitney, LLP
Republic Plaza Building--Suite 4700
370 Seventeenth Street
Denver, Colorado 80202

Re: T.F.H. Publications, Inc v. Aspen Pet Products, Inc.

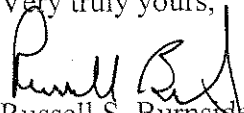
Dear Mr. Tamkin:

Thank you for your January 20, 2010 letter. As you probably suspect, TFH inadvertently omitted several elements of the '516 patent. I attach an Amended Disclosure of Asserted Claims and Infringement Contentions, the submission of which I seek your consent. I note that TFH's correction of its oversight in the previously submitted contentions does not cause any procedural delay, should come as no surprise considering the nature of the infringement contentions already served and will not cause any prejudice because they do not identify or allege infringement by any new apparatus or device. They merely clarify the contentions already asserted.

The situation here stands in stark contrast to *Atmel Corp. v. Info. Storage Devices, Inc.*, No. C 95-1987, 1998 WL 775115, at *2 (N.D. Cal. Nov. 5, 1998). In that case, the Court denied plaintiff's application to substantially amend its claim chart following protracted and contentious discovery, a *Markman* hearing, and a summary judgment decision. Further, plaintiff's application to amend its claim chart sought to include an entirely new theory of infringement, namely the doctrine of equivalents. I also direct your attention to *LG Elecs., Inc. v. Q-Lity Computer, Inc.*, 211 F.R.D. 360, 370-72 (N.D. Cal. 2002) (denying plaintiff's application to amend Rule 3.1 infringement contentions where plaintiff sought to identify numerous of defendants' allegedly infringing products for the first time, the claim construction order had already issued, discovery was nearly complete, and the amendment would cause "significant delay").

Please advise. Thank you.

Very truly yours,



Russell S. Burnside

RSB/iem

EXHIBIT E

GREENBERG DAUBER EPSTEIN & TUCKER

A Professional Corporation

One Gateway Center, Suite 600

Newark, New Jersey 07102

Attorneys for Plaintiff T.F.H. Publications, Inc.

**IN THE UNITED STATES DISTRICT COURT
FOR THE
DISTRICT OF NEW JERSEY**

T.F.H. PUBLICATIONS, INC.,

Plaintiff,

v.

ASPEN PET PRODUCTS, INC.,

Defendant.

Civil Action No. 08-cv-4805 (FLW) (TJB)

**PLAINTIFF T.F.H. PUBLICATIONS,
INC.'S AMENDED DISCLOSURE OF
ASSERTED CLAIMS AND
INFRINGEMENT CONTENTIONS
PURSUANT TO L. PAT. R. 3.1**

To: Gregory S. Tamkin, Esq.
Dorsey & Whitney LLP
370 Seventeenth Street, Suite 4700
Denver, Colorado 80202

Plaintiff T.F.H. Publications, Inc. ("TFH") hereby makes the following Amended Disclosure of Asserted Claims and Infringement Contentions pursuant to *Local Patent Rule 3.1*:

L. Pat. R. 3.1(a):

Each claim of each patent in suit that is allegedly infringed by each opposing party, including for each claim the applicable statutory subsections of 35 U.S.C. § 271 asserted:

TFH claims that defendant Aspen Pet Products, Inc., upon information and belief now known and/or doing business as Dorskocil Manufacturing Company, Inc. ("Dorskocil"), has infringed the following claims of U.S. Patent Number 6,159,516 ("the '516 Patent"), each in violation of 35 U.S.C. § 271(a) and (b):

Claim 1(a), “combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch”;

Claim 1(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;

Claim 1(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight”;

Claim 2, “The process of claim 1, wherein the injection molded machine is a vented barrel injection molding machine”;

Claim 3, “The process of claim 1, wherein the injection molding machine contains a vented mold”;

Claim 4, “The process of claim 1, further comprising the step of introducing the product of step (b) to a dryer and reducing the water content to a level less than that of the water content of said product discharged from said extruder”;

Claim 5, “The process of claim 1 wherein said water content in step (a) is about 25-35% by weight”;

Claim 6, “The process of claim 1 wherein said water content in step (a) is about 30-35% by weight”;

Claim 7, “The process of claim 1 wherein said water content in step (a) is about 30-33% by weight”;

Claim 8, “The process of claim 1, wherein the water content of said molded article is about 5-20% by weight”;

Claim 9, “The process of claim 1, wherein the water content of said molded article is about 10-15% by weight”;

Claim 10, “The process of claim 1, wherein the water content of said molded article is about 11-14% by weight”;

Claim 11, “The process of claim 1, wherein the water content of said molded article is about 11-13% by weight”;

Claim 12, “The process of claim 1, wherein the water content in step (a) is about 25-35% by

weight, and the water content of said molded article is about 10-15% by weight.

Claim 13, “The process of claim 1 wherein during step (c), 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture”;

Claim 14(a), “combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch”;

Claim 14(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;

Claim 14(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight, wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle, wherein said heating zone in said barrel adjacent said hopper is maintained at a temperature of less than about 150° F.”;

Claim 15, “The process of claim 14, further comprising the step of introducing the product of step (b) to a dryer and reducing the water content to a level less than that of the water content of said product discharged from said extruder”;

Claim 16, “The process of claim 14, wherein said barrel adjacent said hopper is maintained at a temperature of less than about 100° F.”;

Claim 17, “The process of claim 14, wherein said barrel adjacent said hopper is maintained at a temperature of less than about 75° F.”;

Claim 18, “the process of claim 14, wherein said barrel adjacent said hopper is cooled to a temperature of between about 40-80° F.”;

Claim 19, “The process of claim 14 wherein said cooling to form said molded product takes place in a mold cooled to about 35-65° F.”;

Claim 20(a), “combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch”;

Claim 20(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder

is less than the water content of said mixture entering said extruder”;

Claim 20(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight, wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle, wherein the first and second zones adjacent said hopper are maintained at a temperature of less than about 150° F.”;

Claim 21, “The process of claim 20, further comprising the step of introducing the product of step (b) to a dryer and reducing the water content to a level less than that of the water content of said product discharged from said extruder”;

Claim 22, “The process of claim 20, wherein during step (c), 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture”;

Claim 23(a), “combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch”;

Claim 23(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;

Claim 23(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight, wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle, wherein said plurality of heating zones are set within the following temperature ranges: zone 1 = at or below about 70° F.; zone 2 = at or below 150° F.; zone 3 = at or below 300° F.; zone 4 = at or below about 375° F.”;

Claim 24, “The process of claim 23, further comprising the step of introducing the extruded mixture of step (b) to a dryer and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder”;

Claim 25, “The process of claim 23, wherein said cooling to form said molded article takes place in said mold at a temperature of about 35-65° F.”;

Claim 26, “The process of claim 23, wherein said mold contains a bushing heated to about 300-425° F.”;

Claim 27, “The process of claim 23, wherein said nozzle is maintained at a temperature between about 275-390° F.”;

Claim 28, “The process of claim 23, wherein during step (c) 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture”;

Claim 29, “In the process of manufacturing a molded starch/water product, the improvement which comprises forming extruded starch pellets via a vented barrel extruder containing water therein and introducing those pellets to a heated injection molding machine and injection molding and cooling to form a molded article wherein the water content of said molded article is at or below about 20% by weight, wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle, wherein the zone adjacent said hopper is maintained at a temperature less than about 150° F.”;

Claim 30, “The process of claim 29, wherein said zone adjacent said hopper is maintained at a temperature between 45-150° F.”;

Claim 31, “The process of claim 29 wherein said zone adjacent said hopper comprises a first heating zone adjacent said hopper, and a second heating zone adjacent said first zone, and the temperatures of said first heating zone is about 45-70° F. and the temperature of said second heating zone is about 70-150° F.”;

Claim 32, “The process of claim 29 wherein during said injection molding 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture”;

Claim 33(a), “combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch”;

Claim 33(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;

Claim 33(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding and cooling to form said molded starch product wherein the water content of said molded article is at or below about 20% by weight”;

Claim 34, “The process of claim 33, further comprising the step of introducing the extruded mixture of step (b) to a dryer and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder”; and

Claim 35, “The product of claim 34 wherein during step (c), 1-5% of an attractant and 0.1-

5% of a humectant are added to said extruded mixture.”

L. Pat. R. 3.1(b):

Separately for each asserted claim, each accused apparatus, product, device, process, method, act, or other instrumentality (“Accused Instrumentality”) of each opposing party of which the party is aware. This identification shall be as specific as possible. Each product, device, and apparatus shall be identified by name or model number, if known. Each method or process shall be identified by name, if known, or by any product, device or apparatus which, when used, allegedly results in the practice of the claimed method or process:

Upon information and belief, defendant Daskocil has infringed upon **Claim 1(a)** through its agent Crosswinds Industries, Inc. (“Crosswinds”), located at 812 South 12th Street, Hiawatha, Kansas, 66434 by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of the starch.

Upon information and belief, defendant Daskocil has infringed upon **Claim 1(b)** by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder.

Upon information and belief, defendant Daskocil has infringed upon **Claim 1(c)** through its agent B&R Plastics, (“B&R”) located in Colorado by B&R’s use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 2** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 3** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 4** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 5** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 6** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 7** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 8** by Crosswinds'

use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and then by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process and then by the use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Daskocil has infringed upon **Claim 9** by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and then by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process and then by the use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Daskocil has infringed upon **Claim 10** by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and then by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process and then by the use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Daskocil has infringed upon **Claim 11** by Crosswinds’ use of a “cascade devolatilization extrusion process,” which incorporates the use of,

among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and then by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process and then by the use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 12** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and then by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process and then by the use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 13** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 14(a)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144; and by the practice of combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of the starch.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 14(b)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of,

among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 14(c)** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 15** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder and then by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 16** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 17** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 18** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 19** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 20(a)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of the starch.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 20(b)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 20(c)** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 21** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of,

among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process.

Upon information and belief, defendant Daskocil has infringed upon **Claim 22** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Daskocil has infringed upon **Claim 23(a)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of the starch.

Upon information and belief, defendant Daskocil has infringed upon **Claim 23(b)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder.

Upon information and belief, defendant Daskocil has infringed upon **Claim 23(c)** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Daskocil has infringed upon **Claim 24** by

Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 25** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 26** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 27** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 28** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Dorskocil has infringed upon **Claim 29** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and by B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Daskocil has infringed upon **Claim 30** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Daskocil has infringed upon **Claim 31** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Daskocil has infringed upon **Claim 32** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

Upon information and belief, defendant Daskocil has infringed upon **Claim 33(a)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by the practice of combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to about 40.0% by weight with respect to that of the starch.

Upon information and belief, defendant Daskocil has infringed upon **Claim 33(b)** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144 and by the practice of starve feeding in the twin screw extruder to form extruded beads to ensure that water is discharged from the extruder such that the water content of the beads discharged from the extruder is less than the water content of the mixture of starch and water entering the extruder.

Upon information and belief, defendant Daskocil has infringed upon **Claim 33(c)** through B&R's use of a heated injection molding machine, the details of which defendant has refused to

divulge to plaintiff TFH.

Upon information and belief, defendant Daskocil has infringed upon **Claim 34** by Crosswinds' use of a "cascade devolatilization extrusion process," which incorporates the use of, among other things, a Clextral twin screw extruder, model number BC-72, serial number 5208144, and by introducing the product of said cascade devolatilization extrusion process to a dryer that reduces the water content to a level less than that of said product discharged from the cascade devolatilization extrusion process.

Upon information and belief, defendant Daskocil has infringed upon **Claim 35** through B&R's use of a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.

L. Pat. R. 3.1(c):

A chart identifying specifically where each limitation of each asserted claim is found within each Accused Instrumentality, including for each limitation that such party contends is governed by 35 U.S.C. § 112(6), the identity of the structure(s), act(s), or material(s) in the Accused Instrumentality that performs the claimed function:

<u>Limitation of the '516 Patent</u>	<u>Location Within the Accused Instrumentality</u>
Claim 1(a) , "combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch"	Upon information and belief, defendant Daskocil, through its agent Crosswinds, adds at least 20% water to the starch in the preconditioner, and at least an additional 5% water as the material enters the extrusion process via a liquid injection port. Thus, upon information and belief, the starch and water are combined to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch, immediately prior to the introduction of the mixture to the cascade devolatilization process.

<p>Claim 1(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the heated starch and water mixture via a hopper to a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144. Upon information and belief, some venting occurs at the twin screw hopper. Upon information and belief, in the area between the two stages of the cascade devolatilization process further venting occurs. Upon information and belief, defendant Dorskocil, through its agent Crosswinds, utilizes starve feeding, which facilitates the venting of moisture within the barrel of the extruder. Finally, upon information and belief, additional venting occurs while the mixture exits the twin screw extruder, prior to completion of the cascade devolatilization extrusion process.</p>
<p>Claim 1(b), “... wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”</p>	<p>Upon information and belief, the water content of the mixture upon completion of Dorskocil’s cascade devolatilization extrusion process, through its agent Crosswinds, is less than that of said mixture when entering said process.</p>
<p>Claim 1(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding [sic] ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.</p>
<p>Claim 1(c), “... and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight.”</p>	<p>Upon information and belief, having introduced the extruded material to the heated injection molding machine, defendant Dorskocil, through its agent B&R, cools the mixture such that the water content of the final molded article is at or below 20% by weight.</p>

Claim 2 , "The process of claim 1, wherein the injection molded machine is a vented barrel injection molding machine."	Upon information and belief, defendant Daskocil, through its agent B&R, uses an injection molded machine is a vented barrel injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.
Claim 3 , "The process of claim 1, wherein the injection molding machine contains a vented mold."	Upon information and belief, defendant Daskocil, through its agent B&R, uses an injection molding machine that contains a vented mold, the details of which defendant has refused to divulge to plaintiff TFH.
Claim 4 , "The process of claim 1, further comprising the step of introducing the product of step (b) to a dryer ..."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, introduces the product formed by its infringement of Claim 1(b) to a dryer.
Claim 4 , "... and reducing the water content to a level less than that of the water content of said product discharged from said extruder."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, uses said dryer to reduce the water content of the said product to a level less than that of the water content upon discharge from the cascade devolatilization extrusion process.
Claim 5 , "The process of claim 1 wherein said water content in step (a) is about 25-35% by weight."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, combines the starch and water mixture prior to the start of the cascade devolatilization process such that the water content is about 25-35% by weight.
Claim 6 , "The process of claim 1 wherein said water content in step (a) is about 30-35% by weight."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, combines the starch and water mixture prior to the start of the cascade devolatilization process such that the water content is about 30-35% by weight.
Claim 7 , "The process of claim 1 wherein said water content in step (a) is about 30-33% by weight."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, combines the starch and water mixture prior to the start of the cascade devolatilization process such that the water content is about 30-33% by weight.

Claim 8 , "The process of claim 1, wherein the water content of said molded article is about 5-20% by weight."	Upon information and belief, defendant Daskocil, through its agents Crosswinds and B&R, creates the molded article described above such that the water content is about 5-20% by weight.
Claim 9 , "The process of claim 1, wherein the water content of said molded article is about 10-15% by weight."	Upon information and belief, defendant Daskocil, through its agents Crosswinds and B&R, creates the molded article described above such that the water content is about 10-15% by weight.
Claim 10 , "The process of claim 1, wherein the water content of said molded article is about 11-14% by weight."	Upon information and belief, defendant Daskocil, through its agents Crosswinds and B&R, creates the molded article described above such that the water content is about 11-14% by weight.
Claim 11 , "The process of claim 1, wherein the water content of said molded article is about 11-13% by weight."	Upon information and belief, defendant Daskocil, through its agents Crosswinds and B&R, creates the molded article described above such that the water content is about 11-13% by weight.
Claim 12 , "The process of claim 1, wherein the water content in step (a) is about 25-35% by weight, and the water content of said molded article is about 10-15% by weight."	Upon information and belief, defendant Daskocil, through its agents Crosswinds and B&R, creates the molded article described above such that the water content is about 10-15% by weight.
Claim 13 , "The process of claim 1 wherein during step (c), 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture."	Upon information and belief, defendant Daskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.

<p>Claim 14(a), “combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, adds at least 20% water to the starch in the preconditioner, and at least an additional 5% water as the material enters the extrusion process via a liquid injection port. Thus, upon information and belief, the starch and water are combined to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch, immediately prior to the introduction of the mixture to the cascade devolatilization process.</p>
<p>Claim 14(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads ...”</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, introduces the heated starch and water mixture via a hopper to a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144. Upon information and belief, some venting occurs at the twin screw hopper. Upon information and belief, in the area between the two stages of the cascade devolatilization process further venting occurs. Upon information and belief, defendant Daskocil, through its agent Crosswinds, utilizes starve feeding, which facilitates the venting of moisture within the barrel of the extruder. Finally, upon information and belief, additional venting occurs while the mixture exits the twin screw extruder, prior to completion of the cascade devolatilization extrusion process.</p>
<p>Claim 14(b), “... wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder.”</p>	<p>Upon information and belief, the water content of the mixture upon completion of Daskocil’s cascade devolatilization extrusion process, through its agent Crosswinds, is less than that of said mixture when entering said process.</p>

Claim 14(c) , “introducing the extruded beads of (b) to a heated injection molding machine ...”	Upon information and belief, defendant Dorskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.
Claim 14(c) , “... and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight ...”	Upon information and belief, having introduced the extruded material to the heated injection molding machine, defendant Dorskocil, through its agent B&R, molds and cools the mixture such that the water content of the final molded article is at or below 20% by weight.
Claim 14(c) , “... wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle ...”	Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine that contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle, the details of which defendant has refused to divulge to plaintiff TFH.
Claim 14(c) , “... wherein said heating zone in said barrel adjacent said hopper is maintained at a temperature of less than about 150° F.”	Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine wherein the heating zone in the barrel adjacent to the hopper is maintained at a temperature of less than about 150° F.
Claim 15 , “The process of claim 14, further comprising the step of introducing the product of step (b) to a dryer ...”	Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the product formed by its infringement of Claim 14(b) to a dryer.
Claim 15 , “... and reducing the water content to a level less than that of the water content of said product discharged from said extruder.”	Upon information and belief, defendant Dorskocil, through its agent Crosswinds, uses said dryer to reduce the water content of the said product to a level less than that of the water content upon discharge from the cascade devolatilization extrusion process.

<p>Claim 16, “The process of claim 14, wherein said barrel adjacent said hopper is maintained at a temperature of less than about 100° F.”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein the barrel adjacent to the hopper is maintained at a temperature of less than about 100° F.</p>
<p>Claim 17, “The process of claim 14, wherein said barrel adjacent said hopper is maintained at a temperature of less than about 75° F.”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein the barrel adjacent to the hopper is maintained at a temperature of less than about 75° F.</p>
<p>Claim 18, “the process of claim 14, wherein said barrel adjacent said hopper is cooled to a temperature of between about 40-80° F.”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein the barrel adjacent to the hopper is cooled to a temperature of between about 40-80° F.</p>
<p>Claim 19, “The process of claim 14 wherein said cooling to form said molded product takes place in a mold cooled to about 35-65° F.”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein the cooling to form said molded product takes place in a mold cooled to about 35-65° F.</p>

<p>Claim 20(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the heated starch and water mixture via a hopper to a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144. Upon information and belief, some venting occurs at the twin screw hopper. Upon information and belief, in the area between the two stages of the cascade devolatilization process further venting occurs. Upon information and belief, defendant Dorskocil, through its agent Crosswinds, utilizes starve feeding, which facilitates the venting of moisture within the barrel of the extruder. Finally, upon information and belief, additional venting occurs while the mixture exits the twin screw extruder, prior to completion of the cascade devolatilization extrusion process.</p>
<p>Claim 20(b), “... wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder.”</p>	<p>Upon information and belief, the water content of the mixture upon completion of Dorskocil’s cascade devolatilization extrusion process, through its agent Crosswinds, is less than that of said mixture when entering said process.</p>
<p>Claim 20(c), “introducing the extruded beads of (b) to a heated injection molding machine ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.</p>

<p>Claim 20(c), "... and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight ..."</p>	<p>Upon information and belief, having introduced the extruded material to the heated injection molding machine, defendant Daskocil, through its agent B&R, molds and cools the mixture such that the water content of the final molded article is at or below 20% by weight.</p>
<p>Claim 20(c), "... wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle ..."</p>	<p>Upon information and belief, defendant Daskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, that contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle.</p>
<p>Claim 20(c), "... wherein the first and second zones adjacent said hopper are maintained at a temperature less than about 150° F."</p>	<p>Upon information and belief, defendant Daskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein the first and second zones adjacent said hopper are maintained at a temperature less than about 150° F.</p>
<p>Claim 21, "The process of claim 20, further comprising the step of introducing the product of step (b) to a dryer ..."</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, introduces the product formed by its infringement of Claim 20(b) to a dryer.</p>
<p>Claim 21, "... and reducing the water content to a level less than that of the water content of said product discharged from said extruder."</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, uses said dryer to reduce the water content of the said product to a level less than that of the water content upon discharge from the cascade devolatilization extrusion process.</p>

<p>Claim 22, “The process of claim 20, wherein during step (c), 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.</p>
<p>Claim 23(a), “combining starch and water to form a mixture wherein the water content is in the range of greater than about 20.0 to 40.0% by weight with respect to that of said starch.”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, adds at least 20% water to the starch in the preconditioner, and at least an additional 5% water as the material enters the extrusion process via a liquid injection port. Thus, upon information and belief, the starch and water are combined to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch, immediately prior to the introduction of the mixture to the cascade devolatilization process.</p>

<p>Claim 23(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the heated starch and water mixture via a hopper to a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144. Upon information and belief, some venting occurs at the twin screw hopper. Upon information and belief, in the area between the two stages of the cascade devolatilization process further venting occurs. Upon information and belief, defendant Dorskocil, through its agent Crosswinds, utilizes starve feeding, which facilitates the venting of moisture within the barrel of the extruder. Finally, upon information and belief, additional venting occurs while the mixture exits the twin screw extruder, prior to completion of the cascade devolatilization extrusion process.</p>
<p>Claim 23(b), “... wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder”;</p>	<p>Upon information and belief, the water content of the mixture upon completion of Dorskocil’s cascade devolatilization extrusion process, through its agent Crosswinds, is less than that of said mixture when entering said process.</p>
<p>Claim 23(c), “introducing the extruded beads of (b) to a heated injection molding machine ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.</p>

<p>Claim 23(c), "... and injection molding and cooling to form said molded article wherein the water content of said molded article is at or below about 20% by weight ..."</p>	<p>Upon information and belief, having introduced the extruded material to the heated injection molding machine, defendant Dorskocil, through its agent B&R, molds and cools the mixture such that the water content of the final molded article is at or below 20% by weight.</p>
<p>Claim 23(c), "... wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle ..."</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, that contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle.</p>
<p>Claim 23(c), "... wherein said plurality of heating zones are set within the following temperature ranges: zone 1 = at or below about 70° F.; zone 2 = at or below 150° F.; zone 3 = at or below 300° F.; zone 4 = at or below about 375° F."</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein a plurality of heating zones are set within the following temperature ranges: zone 1 = at or below about 70° F.; zone 2 = at or below 150° F.; zone 3 = at or below 300° F.; zone 4 = at or below about 375° F.</p>
<p>Claim 24, "The process of claim 23, further comprising the step of introducing the extruded mixture of step (b) to a dryer ..."</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the extruded mixture formed by its infringement of Claim 23(b) to a dryer.</p>
<p>Claim 24, "... and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder."</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, uses said dryer to reduce the water content of the said product to a level less than that of the water content upon discharge from the cascade devolatilization extrusion process.</p>

<p>Claim 25, “The process of claim 23, wherein said cooling to form said molded article takes place in said mold at a temperature of about 35-65° F.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein the cooling to form the molded article takes place in said mold at a temperature of about 35-65° F.</p>
<p>Claim 26, “The process of claim 23, wherein said mold contains a bushing heated to about 300-425° F.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein the mold contains a bushing heated to about 300-425° F.</p>
<p>Claim 27, “The process of claim 23, wherein said nozzle is maintained at a temperature between about 275-390° F.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein the nozzle is maintained at a temperature between about 275-390° F.</p>
<p>Claim 28, “The process of claim 23, wherein during step (c) 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.</p>
<p>Claim 29, “In the process of manufacturing a molded starch/water product, the improvement which comprises forming extruded starch pellets via a vented barrel extruder containing water therein ...”</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, manufactures a molded starch/water product which comprises forming starch pellets via a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144, and contains water therein.</p>

<p>Claim 29, "... and introducing those pellets to a heated injection molding machine ..."</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, introduces the pellets to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.</p>
<p>Claim 29, "... and injection molding and cooling to form a molded article wherein the water content of said molded article is at or below about 20% by weight ..."</p>	<p>Upon information and belief, having introduced the pellets to the heated injection molding machine, defendant Dorskocil, through its agent B&R, molds and cools the mixture such that the water content of the final molded article is at or below 20% by weight.</p>
<p>Claim 29, "... wherein the injection molding machine contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle ..."</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, that contains a hopper feed section, a barrel and an output nozzle, including a plurality of heating zones in said barrel extending from said hopper section to said nozzle.</p>
<p>Claim 29, "... wherein the zone adjacent said hopper is maintained at a temperature less than about 150° F."</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff, wherein the heating zone in the barrel adjacent to the hopper is maintained at a temperature of less than about 150° F.</p>
<p>Claim 30, "The process of claim 29, wherein said zone adjacent said hopper is maintained at a temperature between 45-150° F."</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff, wherein the heating zone in the barrel adjacent to the hopper is maintained at a temperature between 45-150° F.</p>

<p>Claim 31, “The process of claim 29 wherein said zone adjacent said hopper comprises a first heating zone adjacent said hopper, and a second heating zone adjacent said first zone, and the temperatures of said first heating zone is about 45-70° F. and the temperature of said second heating zone is about 70-150° F.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent B&R, uses an injection molding machine, the details of which defendant has refused to divulge to plaintiff, wherein the first heating zone in the barrel adjacent to the hopper is maintained at a temperature of about 45-70° F. and the second heating zone is maintained at a temperature of about 70-150° F.</p>
<p>Claim 32, “The process of claim 29 wherein during said injection molding 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.</p>
<p>Claim 33(a), “combining starch and water to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch.”</p>	<p>Upon information and belief, defendant Daskocil, through its agent Crosswinds, adds at least 20% water to the starch in the preconditioner, and at least an additional 5% water as the material enters the extrusion process via a liquid injection port. Thus, upon information and belief, the starch and water are combined to form a mixture wherein the water content is in the range of about 20.0 to 40.0% by weight with respect to that of said starch, immediately prior to the introduction of the mixture to the cascade devolatilization process.</p>

<p>Claim 33(b), “introducing and heating said mixture in a vented barrel extruder to form extruded beads ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent Crosswinds, introduces the heated starch and water mixture via a hopper to a cascade devolatilization extrusion process, which process incorporates the use of, among other things, the Clextral twin screw extruder, model number BC-72, serial number 5208144. Upon information and belief, some venting occurs at the twin screw hopper. Upon information and belief, in the area between the two stages of the cascade devolatilization process further venting occurs. Upon information and belief, defendant Dorskocil, through its agent Crosswinds, utilizes starve feeding, which facilitates the venting of moisture within the barrel of the extruder. Finally, upon information and belief, additional venting occurs while the mixture exits the twin screw extruder, prior to completion of the cascade devolatilization extrusion process.</p>
<p>Claim 33(b), “... wherein the water content of said beads upon discharge from said extruder is less than the water content of said mixture entering said extruder.”</p>	<p>Upon information and belief, the water content of the mixture upon completion of Dorskocil’s cascade devolatilization extrusion process, through its agent Crosswinds, is less than that of said mixture when entering said process.</p>
<p>Claim 33(c), “introducing the extruded beads of (b) to a heated injection molding machine and injection molding [sic] ...”</p>	<p>Upon information and belief, defendant Dorskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH.</p>

Claim 33(c) , "... and cooling to form said molded starch product wherein the water content of said molded article is at or below about 20% by weight."	Upon information and belief, having introduced the extruded material to the heated injection molding machine, defendant Daskocil, through its agent B&R, cools the mixture such that the water content of the final molded article is at or below 20% by weight.
Claim 34 , "The process of claim 33, further comprising the step of introducing the extruded mixture of step (b) to a dryer ..."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, introduces the extruded mixture formed by its infringement of Claim 33(b) to a dryer.
Claim 34 , "... and reducing the water content to a level less than that of the water content of said extruded mixture discharged from said extruder."	Upon information and belief, defendant Daskocil, through its agent Crosswinds, uses said dryer to reduce the water content of the said product to a level less than that of the water content upon discharge from the cascade devolatilization extrusion process.
Claim 35 , "The product of claim 34 wherein during step (c), 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture."	Upon information and belief, defendant Daskocil, through its agent B&R, introduces the extruded material to a heated injection molding machine, the details of which defendant has refused to divulge to plaintiff TFH, wherein 1-5% of an attractant and 0.1-5% of a humectant are added to said extruded mixture.

L. Pat. R. 3.1(d):

For each claim that is alleged to have been indirectly infringed, an identification of any direct infringement and a description of the acts of the alleged indirect infringer that contribute to or are inducing that direct infringement. Insofar as alleged direct infringement is based on joint acts or multiple parties, the role of each such party in the direct infringement must be described:

Plaintiff TFH does not allege indirect infringement with respect to any asserted claims or limitations within the '516 Patent. Upon information and belief, defendant Daskocil engages in, induces, directs, and/or encourages the direct infringement of the '516 through its agents Crosswinds

and B&R as set forth in detail with respect to *L. Pat. R. 3.1(b)* and (c), *supra*.

L. Pat. R. 3.1(e):

Whether each limitation of each asserted claim is alleged to be literally present or present under the doctrine of equivalents in the Accused Instrumentality:

Plaintiff TFH alleges that each limitation in each asserted claim is literally present in the Accused Instrumentality. Plaintiff TFH does not allege that any limitation of any asserted claim is present under the doctrine of equivalents.

L. Pat. R. 3.1(f):

For any patent that claims priority to an earlier application, the priority date to which each asserted claim allegedly is entitled:

Plaintiff TFH does not assert that the '516 Patent claims priority to an earlier application. Thus, no statement with respect to *L. Pat. R. 3.1(f)* is required.

L. Pat. R. 3.1(g):

If a party claiming patent infringement wishes to preserve the right to rely, for any purpose, on the assertion that its own apparatus, product, device, process, method, act, or other instrumentality practices the claimed invention, the party shall identify, separately for each asserted claim, each such apparatus, product, device, process, method, act or other instrumentality that incorporates or reflects that particular claim:

TFH contends that its own apparatus, product, device, process, method, act, or other instrumentality practices the claimed invention. However, for purposes of TFH's infringement claim against defendants, such apparatus, product, device, process, method, act, or other instrumentality is not directly relevant. TFH reserves the right to supplement or amend this response should defendant raise or assert any defense or contention that implicates such apparatus, product, device, process, method, act, or other instrumentality.

L. Pat. R. 3.1(h):

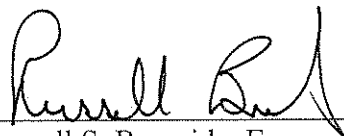
If a party claiming patent infringement alleges willful infringement, the basis for such allegation:

Upon information and belief, Daskocil, a competitor of TFH, determined to use and designed its version of the cascade devolatilization extrusion process knowing the existence of and the claim limitations within TFH's '516 patent and that said process was embodied in the claims of the '516 patent. Upon information and belief, Daskocil did not obtain a good faith opinion from counsel with regard to the cascade devolatilization extrusion process. Further, Daskocil attempted to hide from TFH the specifics of its infringing process when confronted with TFH's allegations of infringement. Moreover, Daskocil has been a defendant in prior actions commenced by TFH in this Court for actions constituting violations of TFH's intellectual property rights.

Plaintiff TFH reserves the right to amend or supplement this Disclosure of Asserted Claims and Infringement Contentions should discovery in this matter reveal further infringement of the '516 patent by defendant Daskocil, or its agents, beyond that described herein.

Dated: January 27, 2010

Greenberg Dauber Epstein & Tucker
A Professional Corporation
Attorneys For T.F.H. Publications, Inc.

By: 

Russell S. Burnside, Esq.
One Gateway Center, Suite 600
Newark, NJ 07102
(973) 643-3700

EXHIBIT F



GREGORY S. TAMKIN
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January 28, 2009

VIA ELECTRONIC MAIL

Russell S. Burnside, Esq.
Greenberg Dauber Epstein & Tucker
One Gateway Center
Newark, NJ 07102-5311

Re: *T.F.H. Publications, Inc. v. Aspen Pet Products, Inc.*

Dear Russ:

This letter is in response to your January 27, 2010 letter and proposed amended 3.1 disclosures.

The proposed amended Rule 3.1 disclosures you submitted with your letter are problematic for multiple reasons. First, we direct you to Local Patent Rule 3.7 which, in part, provides: 3.7. "Amendment of the Infringement Contentions or the Invalidity Contentions may be made by order of the Court upon a timely application and showing of good cause." The Rule then provides examples of what amounts to "good cause." None of those examples are even remotely applicable here and you have not advised of any similar "good cause."

Second, contrary to your assertions, TFH's proposed amended submission does prejudice Aspen and has the potential to disrupt the case schedule. First, TFH does not merely seek to add asserted claims 14, 20, and 23—those claims Aspen pointed out in its letter, but TFH seeks to add *eighteen additional claims*: 2, 3, 14, 15, 16, 17, 18, 19, 20, 22, 23, 25, 26, 27, 28, 30, 31, and 32. This is a wholesale and material change from the original submission. Aspen's Local Patent Rule 3.3 Invalidity Contentions are due in only a week from today on February 4, 2010. Aspen's Rule 3.3 Invalidity Contentions have been informed by the 3.1 disclosures and are a direct response thereto. Further, the parties' proposed claim terms to be defined are due tomorrow. Aspen should not be forced to, in a week's time, provide Invalidity Contentions on eighteen new claims, nor should it be forced to analyze claim terms in a single day. The prejudice resulting from TFH's last-minute efforts is the precise reason why the District of New Jersey has an established schedule for patent cases.

Third, in the actual substance of TFH's proposed additional claims, TFH asserts the same basic position: "Upon information and belief, defendant Dorskocil, through its agent B&R, uses an injection molding machine..." Providing a claim chart on "information and belief" does not meet the level of specificity required by the Local Patent Rules, which require TFH to point out exactly what structures it accuses of infringement. Looking at the merits of the issue, TFH has been on notice, since at least March 18, 2008, that Aspen's injection molding apparatus (via B&R) does not operate in the manner required by element 14(c) of the '516 Patent. *See, e.g.,* Letter to Steve Grossman dated on March 18, 2008, attached to the Complaint referencing the specific temperature zone element. Thus, TFH has no basis to allege "upon information and belief" that Aspen practices the claim. In any event, a motion to amend the disclosures seems



Russell Burnside
January 28, 2010
Page 2

pointless in light of the fact that there is no argument that Aspen practices the temperature element in the first place.

As we informed you in our January 20, 2010 letter, Aspen will proceed under TFH's original submission. If you intend to file a motion to amend the disclosures, I am glad to discuss it further. If you have nothing to add, you can state that we oppose the motion.

Very truly yours,



Gregory S. Tamkin

cc: Thomas McKay, III, Esq.

EXHIBIT G



GREENBERG DAUBER EPSTEIN & TUCKER

COUNSELLORS AT LAW

A PROFESSIONAL CORPORATION

RUSSELL S. BURNSIDE
ADMITTED IN NJ, NY, PA, DC

January 29, 2010

Via E-Mail

Gregory S. Tamkin, Esq.
Dorsey & Whitney, LLP
Republic Plaza Building--Suite 4700
370 Seventeenth Street
Denver, Colorado 80202

Re: T.F.H. Publications, Inc v. Aspen Pet Products, Inc.

Dear Mr. Tamkin:

Thank you for your January 28, 2010 letter. Given your position, we will proceed to file a motion.

Pursuant to the Scheduling Order and Local Patent Rule 4.1, below are the claim terms TFH submits should be construed by the Court:

1. melt processing technique;
2. vented barrel extruder;
3. heated injection molding machine;
4. injection molding and cooling;
5. vented barrel injection molding machine;
6. vented mold;
7. dryer;
8. hopper feed section; and
9. heating zone.

Very truly yours,

A handwritten signature of Russell S. Burnside in black ink.

Russell S. Burnside

RSB/iem